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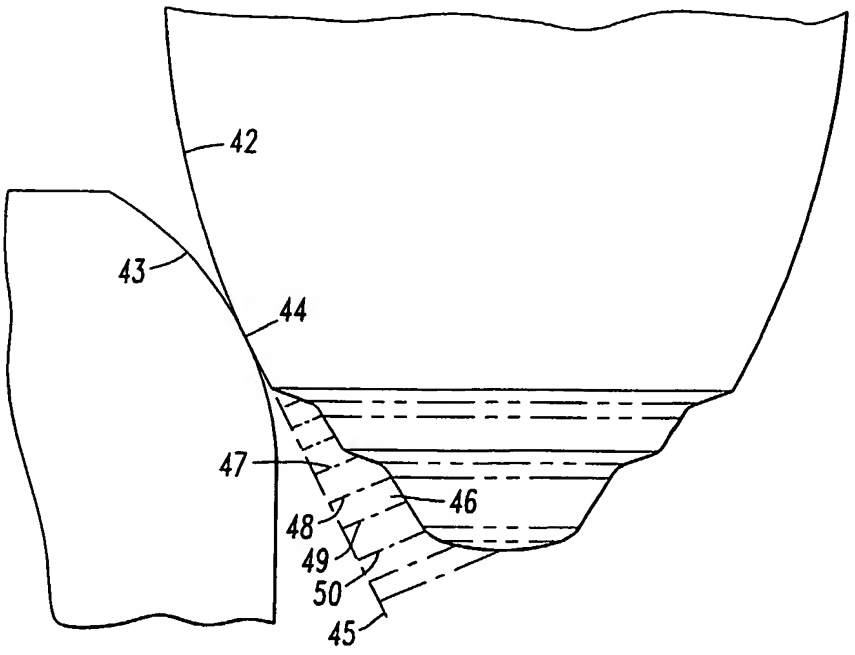
(54) Title: RIPPLED SURFACE STOPPER ROD SYSTEM



(57) Abstract: The present invention concerns stopper rod system for use in a metallurgical vessel, comprising a stopper rod and a nozzle. At least one of the stopper rod nose (42,56) and the internal surface of the nozzle bore comprise (43,62) a plurality of ripples that are arranged such that the size of a flow channel between the stopper rod nose and the internal stopper rod when the stopper rod system is in an open position discontinuously increases in size as a function of the distance downstream from the point of contact between the stopper rod and the nozzle.

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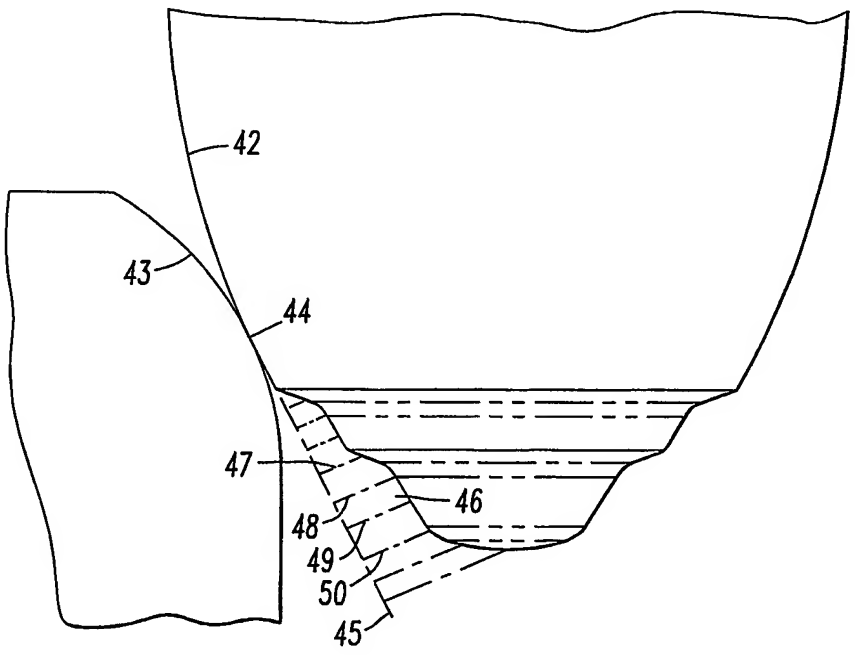

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